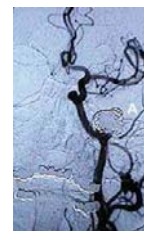


Angiograms

What are angiograms?

Angiograms are x-ray pictures of the inside of blood vessels. The health care provider uses a catheter (a long, slim, flexible tube) to put dye in an artery and takes x-rays to help find any problems.



Why are angiograms used?

The angiogram allows your health care provider to check the inside of a blood vessel to see if it is narrowed, leaking, misshapen, enlarged, or blocked.

Commonly used types of angiograms are:

Carotid angiogram. Carotid angiography is a procedure in which the health care provider examines your carotid arteries. These arteries travel up each side of the neck and supply blood to the brain. Angiograms of the carotid arteries can show if a stroke is likely because the arteries are narrowed or blocked.

Angiograms can also show a tumor in the brain, or if there is an aneurysm, which is a weakened, bulging area in the artery wall.

Coronary angiogram. Pictures of the coronary arteries, which supply the heart muscle with blood, may show narrowing that makes a heart attack likely.

Coronary angiograms can also show where and how much blockage exists after a heart attack.

Abdominal aortic angiogram. In an abdominal aortic angiogram, the health care provider looks at the large artery that leads from the heart to the rest of the body. Angiograms of the aorta can show if it is blocked or if there is an aneurysm (a weak, bulging area in the aorta).

Aorto-femoral angiogram. Aorto-femoral angiograms can show narrowing of the arteries to the legs, which may cause pain when walking. Venograms (pictures of veins) can show the presence of blood clots that may become dangerous.

Digital subtraction angiogram. In a digital subtraction angiogram, the health care provider uses computer-assisted x-rays to see an image of blood vessels at work.

Instead of an angiogram, you might have:

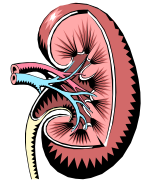
- a sonogram (ultrasound exam)
- a CT scan.

You should ask your health care provider about these choices.



How do I prepare for this procedure?

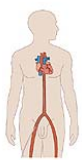
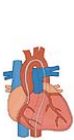
Before the procedure, tell the health care provider if you have had any kidney problems or reactions to iodine-containing substances, such as kidney contrast dye or seafood.



Follow the instructions provided by your health care provider. Eat a light meal the night before the test. Do not eat or drink anything after midnight on the day of the procedure.

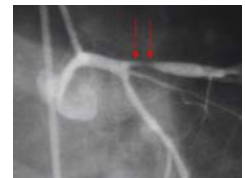
What happens during the procedure?

You will feel very little discomfort during the procedure. A radiologist injects a local anesthetic into your groin area. A local anesthetic is a drug that should keep you from feeling pain during placement of the catheter.



The catheter is inserted and guided to the artery being checked. The radiologist puts dye into the artery. Right after the injection of dye you may feel a warm or hot flush spreading over your body. This warm flush lasts only a few seconds. Sometimes the dye makes you feel like you have to urinate or move your bowels. This sensation also lasts only a few seconds.

X-rays are taken while the dye moves through your artery. Sometimes the x-rays are taken so fast that they form a movie of the progress of the dye. The x-rays show where the artery is blocked or narrowed and how much blockage, narrowing, or deformity there is. When the procedure is over, the catheter is removed.



An angiogram rarely takes longer than an hour and may be an outpatient procedure.

What happens after the procedure?

After the angiogram you may be kept in an observation area for at least a few hours until any risk of bleeding is past. Avoid all strenuous activity for at least the rest of the day.

Ask your health care provider for specific instructions on how to care for yourself at home. Ask how and when you should expect to hear your test results. Make sure you know when you should come back for a checkup.



What are the benefits of this procedure?

Angiograms provide information that your health care provider cannot get any other way. It helps your health care provider determine the best treatment for you.

What are the risks associated with this procedure?

You may have an allergic reaction to the dye, which may cause hives, trouble breathing, a drop in blood pressure, unconsciousness, or swelling of the skin.

A local anesthetic may not numb the area quite enough and you may feel some minor discomfort. Also, in rare cases, you may have an allergic reaction to the drug used in this type of anesthesia.

If you have kidney problems, the dye might make them worse.

Blood may form a clot around the catheter and block the artery.

You may have bleeding where the catheter was inserted into your blood vessel.

The catheter may puncture the artery, making it bleed, or knock some debris off the wall of the artery, causing blockage elsewhere in the artery.

You may need surgery to correct any damage.

You should ask your health care provider how these risks apply to you.

When should I call my health care provider?

Call your health care provider immediately if:

Your leg or foot becomes cool or cold.

The puncture site begins to bleed, swell, or become more painful.

You have slurred speech, balance problems, or trouble using your arm or leg.

You develop a rash.



Call your health care provider during office hours if:



You have questions about the procedure or its result.

You want to make another appointment.

Written by Donald L. Warkentin, MD.

This content is reviewed periodically and is subject to change as new health information becomes available. The information is intended to inform and educate and is not a replacement for medical evaluation, advice, diagnosis or treatment by a healthcare professional.